



LET'S PRESERVE

APPLES

WP 376-99

These processing recommendations are for West Virginia conditions (maximum altitude, 4,000 feet). For canning directions in other locations, consult your county Extension office.

Preparation of apple products

Prepare apple products as described in the following pages. Wash jars. To sterilize empty jars, put them right side up on a rack in a boiling-water canner. Fill the canner and jars with hot (not boiling) water to 1 inch above tops of jars. Boil jars 14 minutes. Remove and drain hot sterilized jars one at a time and fill immediately with food. Prepare lids according to manufacturer's instructions. Place products hot into jars. Wipe sealing edge of jars with a clean, damp paper towel. Add lids and tighten screw bands. Process jars in a boiling-water or pressure canner.

To process in a boiling-water canner, preheat canner filled halfway with water to 180 degrees F. Load sealed jars onto the canner rack and lower with handles; or load one jar at a time with a jar lifter onto rack in canner. Add water, if needed, to a level of 1 inch above jars and add cover. When water boils vigorously, lower heat to maintain a gentle boil and process jars of the product for the time shown in Table 1.

Process times

Table 1. Recommended processing times in a boiling-water canner

Product	Jar Size	Hot Pack Process Time Minutes
Apple butter	Half-pint or pints	10
	Quarts	15
Apple juice	Pints or quarts	10
	Half-gallons	15
Applesauce	Pints	20
	Quarts	30
Sliced Apples	Pints or quarts	30
Spiced apple rings	Half-pints or pints	15
Spiced crab apples	Pints	30

To process in pressure canner, place jar rack, 2 inches of water, and sealed jars in canner. Fasten canner lid, and heat canner on high setting. After steam exhausts 10 minutes, add weighted gauge or close petcock to pressurize the canner. Start timing the process when the desired pressure is reached. Regulate heat to maintain a uniform pressure, and process jars for the time given in Table 2.

When processing is complete, remove canner from heat. Air-cool canner until it is fully depressurized. Slowly remove weighted gauge or open petcock, wait 2 more minutes, and carefully remove canner lid.

Remove jars from canner with a jar lifter and place on a towel or rack. Do not retighten screw bands. Air-cool jars 12 to 24 hours. Remove screw bands and check lid seals. If the center of the lid is indented, wash, dry, label, and store the jar in a clean, cool, dark place. If the lid is unsealed, examine and replace jar if defective, use new lid, and reprocess as before. Wash screw bands and store separately. Products are best if eaten within a year and safe as long as lids remain vacuum-sealed.

Table 2. Recommended hot pack processing times in a pressure canner

Product	Jar Size	Time (minutes)	<i>Dial Gauge</i>	<i>Weighted Gauge</i>
			<i>Canner</i> Pressure (pounds)	<i>Canner</i> Pressure (pounds)
Sliced apples	Pints or quarts	8	7	10
Applesauce	Pints	8	7	10
	quarts	10	7	10

Don't freeze more than 2 pounds of food per cubic foot of freezer capacity per day. Steam-blanch sliced apples 3 minutes, or place 6 cups at a time in 1 gallon of boiling water and blanch 1½ minutes after water returns to a boil. Cool in very cold water and drain. Cover surfaces with ½ cup sugar for every 4 cups of sliced apples. To package sauce or slices, fill pint- or quart-size freezer bags to a level of 3 to 4 inches from their tops, squeeze out air, seal, and label. Before freezing, bags may be inserted into reusable, rigid plastic freezer containers for added protection against punctures and leakage.

Apple butter

Recommended varieties: Jonathan, Winesap, Stayman, Golden Delicious, or MacIntosh

Ingredients:

- 8 pounds apples
- 2 cups cider
- 2 cups vinegar
- 2¹/₄ cups white sugar
- 2¹/₄ cups packed brown sugar
- 2 Tbsp. ground cinnamon
- 1 Tbsp. ground cloves

Yield—About 8 to 9 pints

Wash, remove stems, quarter, and core apples. Cook slowly in cider and vinegar until soft. Press apples through a colander, food mill, or strainer. Cook fruit pulp with sugar and spices, stirring frequently.

To test for doneness, remove a spoonful and hold it away from steam for 2 minutes. It is done if the apple butter remains mounded on the spoon. Another way to determine when the butter is cooked adequately is to spoon a small quantity onto a plate. When a rim of liquid does not separate around the edge of the butter, it is ready for canning.

Fill hot product into sterile half-pint or pint jars, leaving ¹/₄-inch headspace. Quart jars need not be presterilized. Adjust lids and process jars as described in Table 1.

Apple juice

Quality

Good-quality apple juice is made from a blend of apple varieties. For best results, buy fresh juice from a local cider maker within 24 hours after it was pressed.

Preparation

Refrigerate juice for 24 for 48 hours. Without mixing, carefully pour off clear liquid and discard sediment. If desired, strain clear liquid through a paper coffee filter or double layers of damp cheesecloth. Heat quickly, stirring occasionally, until juice begins to boil. Fill immediately into sterile pint or quart jars or fill into clean half-gallon jars, leaving ¹/₄-inch headspace. Adjust lids and process jars as described in Table 1.

Applesauce

Quantity

An average of 21 pounds is needed per canner load of 7 quarts; an average of 13½ pounds is needed per canner load of 9 pints. A bushel weighs 48 pounds and yields 14 to 19 quarts of sauce. An average of 3 pounds makes a quart of canned applesauce.

Quality

Select apples that are sweet, juicy, and crisp. For a tart flavor, add 1 to 2 pounds of tart apples to each 3 pounds of sweeter fruit.

Preparation

Wash, peel, core, and slice apples. If desired, keep slices in water containing ascorbic acid to prevent browning, as described for making sliced apples. Place drained slices in a large 8- to 10-quart saucepan. Add ½ cup water and stir occasionally to prevent browning. Heat quickly until tender (5 to 20 minutes, depending on maturity and variety). Press through a sieve or food mill, or skip the pressing step if you prefer chunky-style sauce. If desired, add ⅛ cup sugar per quart of sauce. Taste and add more sugar if desired. Reheat sauce to boiling. Fill jars with hot sauce, leaving ½-inch headspace. Adjust lids and process jars as described in Table 1.

Sliced apples

Quantity

An average of 19 pounds is needed per canner load of 7 quarts; an average of 12¼ pounds is needed per canner load of 9 pints. A bushel weighs 48 pounds and yields 16 to 19 quarts—an average of 2¾ pounds per quart.

Quality

Select apples that are juicy, crisp, and preferably both sweet and tart. Raw packs make poor-quality products.

Preparation

Wash, peel, core, and slice apples. To prevent discoloration, keep slices in water with vitamin C, made by mixing 1 teaspoon of ascorbic acid crystals or six 500-milligram vitamin C tablets in 1 gallon of water. Place drained slices in a large saucepan and add 1 pint water or very light or light syrup for each 5 pounds of sliced apples. To make syrup, add and dissolve ¼ to ½ cup of sugar to 2 cups water. Boil 5 minutes, stirring occasionally to prevent burning. Fill jars with hot slices and hot syrup or water, leaving ½-inch headspace. Adjust lids and process jars as given in Table 1.

Spiced apple rings

Ingredients:

- 12 pounds firm tart apples (maximum diameter 2-1/2 inches)
- 12 cups sugar
- 6 cups water
- 1¹/₄ cups white vinegar (5%)
- 3 Tbsp. whole cloves
- ³/₄ cup red hot cinnamon candies *or* 8 cinnamon sticks
- 1 tsp. red food coloring (optional)

Yield—About 8 to 9 pints

Preparation

Wash apples. To prevent discoloration, peel and slice one apple at a time. Immediately cut crosswise into 1/2-inch slices, remove core area with a melon baller, and immerse in an ascorbic acid solution made as described in making sliced apples.

To make flavored syrup, combine sugar, water, vinegar, cloves, cinnamon candies or cinnamon sticks, and food coloring in a 6-quart saucepan. Stir and heat to boil; and simmer 3 minutes. Fill jars (preferably wide-mouth) with apple rings and hot flavored syrup, leaving 1/2-inch headspace. Adjust lids and process jars as described in Table 1.

Spiced crab apples

Ingredients:

- 4¹/₂ pounds crab apples
- 4¹/₂ cups apple vinegar (5%)
- 3³/₄ cups water
- 7¹/₂ cups sugar
- 4 tsp. whole cloves
- 4 sticks cinnamon
- 6¹/₂-inch cubes of fresh ginger root

Yield—About 9 pints

Preparation

Remove blossom petals and wash apples, leaving stems attached. Puncture the skin of each apple four times with an ice pick or toothpick. Mix vinegar, water, and sugar and bring to a boil. Add spices tied in a spice bag or cheesecloth. Using a blancher basket or sieve, immerse one-third of the apples at a time in the boiling vinegar/syrup solution for 2 minutes. Place cooked apples and spice bag in a clean 1- or 2-gallon crock and add hot syrup. Cover and let stand overnight. Remove spice bag, drain syrup into a large saucepan, and reheat to boiling. Fill pint jars with apples and hot syrup, leaving 1/2-inch headspace. Adjust lids and process jars as described in Table 1.

**Nutrition
information**

**Average content of a 1/2 cup serving (4 to 4.4 ounces) of
apple products**

	Raw, fresh apple, <i>with peel</i> (slices)		Raw, fresh apple <i>peeled</i> (slices)	
Calories	31		30	
Carbohydrates	8		8	
Fats,	0.3		0.2	
Protein, g	0.1		0.1	
Sodium, mg	0.5		1.0	
Dietary fiber, g	—		1.3	

	Canned			
	Apple Juice	Applesauce (unsweetened)	Applesauce (sweetened)	Apple butter
Calories	60	50	116	262
Carbohydrates	15	13.5	30	66
Fats, g	—	0.2	0.15	1.15
Protein, g	0.1	0.2	0.25	0.55
Sodium, mg	1.0	2.5	2.5	3
Dietary fiber, g	2.9	2.8	2.9	3.2

Apples are an insignificant source of vitamins.

Adapted from *Let's Preserve Apples*, Pennsylvania State College of Agricultural Sciences, Cooperative Extension, and reviewed by Amy O'Dell, Graduate Assistant and Guendoline Brown, Ph.D., Nutrition and Health Specialist, 1999.

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